DOCUMENT RESUME

ED 052 819 24 PS 004 662

AUTHOR	Mumbauer, Corinne C.
TITLE	Influence of Subject and Situational Variables on the Persistence of First Grade Children in a Test-Like Situation.
INSTITUTION	George Peabody Coll. for Teachers, Nashville, Tenn. Demonstration and Research Center for Early Education.
SPONS AGENCY	National Center for Educational Research and Development (DHEW/OE), Washington, D.C. Division of Educational Laboratories.
BUREAU NO	BR-7-0706
PUB DATE	70
CONTRACT	OEC-3-7-070706-3118
NOTE	7p.
JOURNAL CIT	DARCEE Papers and Reports (George Peabody College for Teachers); v4 n12 1970
EDRS PRICE	EDRS Price MF-$0.65 HC-$3.29
DESCRIPTORS	*Achievement Need, Behavior, *Educational Background, Grade 1, *Motivation, Negro Youth, *Persistence, Research Design, *Socioeconomic Background

ABSTRACT

This study was designed to investigate the effect of situational variables on the persistence of 6-year-old children from varying socioeconomic and educational backgrounds. Subjects were 24 male and 24 female children selected randomly from each of four groups of first grade Negro children: one group of advantaged children who had attended preschool and three groups of disadvantaged children whose preschool background varied. In the test-like situation, nine block designs were administered from the Kohs Block Design series to provide relatively insoluble tasks to measure persistence. The difficulty level of the task was described to each child who was tested individually under conditions of reward and non-reward. Expectations based on the effects of socioeconomic and preschool experience differences in background of the four subject groups were not met. Also unsubstantiated were the expectations about the situational variables of reward presence and absence or set for task difficulty. Implications of the findings and possible design changes are discussed. (WY)

ED052819

U. S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

PA-24
BR-7-0706
OEC-3-7-070706-3118

INFLUENCE OF SUBJECT AND SITUATIONAL VARIABLES ON THE PERSISTENCE OF FIRST GRADE CHILDREN IN A TEST-LIKE SITUATION

Corinne C. Mumbauer

George Peabody College for Teachers

Many studies have documented middle class-lower class differences in apparent motivation to achieve. Superior middle class performance has been observed on the variety of indices of achievement motivation such as amount of achievement fantasy (Atkinson, 1958), levels of aspiration (Crockett, 1966) and persistence in a test-like situation (Douvan, 1966). While most of the research has been with adolescent and adult populations, Atkinson (1958) hypothesized that the achievement motive probably develops between the ages of five and nine. Unfortunately few studies have focused on the development of this motive in young children.

One reason for the pausity of developmental research in this area has been the difficulty of measuring achievement motivation. Typically Ss have been asked to tell stories in response to standardized pictures or have been required to respond to questionnaires (Atkinson, 1958; Atkinson and Feather, 1966). Obviously the utility of these

PS 004662

The work reported herein was performed by the Demonstration and Research Center for Early Education a subcontractor under the National Program on Early Childhood Education of the Central Midwestern Regional Educational Laboratory, a private non-profit corporation supported in part as a regional educational laboratory by funds from the United States Office of Education, Department of Health, Education and Welfare. The opinions expressed in this publication do not necessarily reflect the position or policy of the Office of Education, and no official endorsement by the Office of Education should be inferred.

two testing methods is limited for use with young children, particularly those from disadvantaged backgrounds. Recently developed theory and research suggest other performance measures which can be used to reflect differences in achievement motivation.

Persistence in a test-like situation is one behavior which has been shown to reflect the need to achieve (Feather, 1966). Atkinson and Feather (1966) theorized and found data to support their notion that subjects who have a high level of motivation to achieve success and those who have high needs to avoid failure will respond differently to situational variables such as whether the task has been characterized as difficult or easy. It was found (Feather, 1966) that adult Ss with high need achievement persisted longer when told the test was easy than when told it was hard. The reverse pattern was found in Ss who had been classified as having a high need to avoid failure. Thus persistence in a test-like situation was influenced by the interaction of situational and motivational variables.

Another situational variable was found by Douvan (1966) to effect persistence. She found that the presence or absence of a concrete reward had a differential impact on the persistence of lower and middle class adolescents. She found that while middle class children persisted regardless of the presence of the reward, lower class adolescents made an extended effort to achieve only when the offer of an objective reward was present.

This study was designed to explore the effect of situational variables on the persistence of first grade children from varying socioeconomic and educational backgrounds. Of particular interest was the persistence of the group of disadvantaged Ss who had attended the DARCEE preschool for 2 1/2 years prior to entering first grade.

A middle class group of children was included along with two other comparison groups of disadvantaged Ss. One of the later had attended some type of preschool during the year preceding first grade while the other had had no preschool experience. On the basis of findings of research with older Ss it was expected that the level of need for achievement would be higher in the middle class group than in the disadvantaged group. Because of the emphasis on persistence and the effort to encourage the development of achievement motivation in the DARCEE preschool program, Ss from that program were expected to persist in a manner more similar to middle class Ss than to disadvantaged Ss from other backgrounds. Two situational variables were manipulated. The first of these was the difficulty level of the task as described to the child. The second was the presence or absence of the offer of a concrete reward. Expectations about the influences of these variables were formed on the basis of the previously described work of Feather (1966) and Douvan (1966). Middle class and DARCEE Ss were expected to persist longer on tasks described as easy than disadvantaged Ss without the DARCEE preschool experience. The presence of a concrete reward was expected to increase the persistence of non-DARCEE disadvantaged Ss but to have little effect on DARCEE or middle class Ss.

Subjects

24 male and 24 female children were selected randomly from each of four groups of first grade Negro children. The first of these four groups was composed of middle class or advantaged children. This group was mixed in terms of whether or not its members had attended a preschool prior to first grade. The remaining three groups were disadvantaged children whose preschool backgrounds varied. One group had

attended the DARCEE preschool for two and a half years. The second group had attended public school kindergarten during the year prior to first grade and the third group had had no preschool experience.

Apparatus

A level $\overline{X}$ block design was chosen from the Kohs Block Design series to provide the relatively insoluable task to measure persistence. In addition, a very simple paper and pencil maze was used so that all Ss would be able to complete the last problem successfully. The set of nine Kohs blocks was presented to the S with the level $\overline{X}$ design.

Small, colorfully wrapped packages containing approximately 3 cents worth of candy were present and visible in a shallow cardboard carton throughout the testing for Ss in the reward condition.

Procedure

Each of two female Negro E's tested an equal number of males and females in each treatment condition. All Ss were tested individually. An equal number of male and female Ss from each of the four populations, middle class, DARCEE disadvantaged, disadvantaged no kindergarten, disadvantaged-public kindergarten were randomly assigned to each of the cells of a 2 (reward-non reward) X 2 (hard-easy set) design.

All Ss were told that they were going to be given a test and should try to do their best on it. Subjects in the hard set condition were told that the first problem was very hard, so hard that most children in their class could not get it. They were again asked to do their best on this first problem and to be sure and tell the E when they were ready to go to the next problem. Similar instructions were given to Ss in the Easy set

condition with the exception that they were told that the first problem on the test was very easy. It was explained that most children in their class were able to do the first problem on the test. All Ss were given the very simple design as the second and last problem to attempt. They thereby ended the test with a success experience.

Subjects in the Reward condition were shown a box of small colorfully wrapped packages prior to beginning the first problem and told that if they did well on the task, they would win a prize. It was explained that if they did well enough to win the prize, they would receive it along with the rest of the winners after all the children in their class had taken the test. All Ss in the non-reward condition were tested prior to Ss in the reward condition to prevent contamination of non-reward Ss' expectancies by peers.

Results

A 4 (Subject groups) X 2 (Hard-Easy Set) X 2 (Reward-Non Reward) analysis of variance was performed on log transformations of the number of seconds each S persisted on the first problem. No differences significant at the .05 level or beyond were found for any of the main effects or interactions.

A 2 (Hard-Easy Set) X 2 (Reward-Non Reward) analysis of variance was carried out separately on log transformation of the seconds Ss persisted on the first problem for each of the four Subject groups. Again no F's were significant at the .05 level or beyond for main effects or interactions for any of the four analyses.

PS 004662

Discussion

Expectations about the effects of socioeconomic and preschool experience differences in backgrounds of the four subject groups were not met. Also unsubstantiated

by the data were the expectations about the influence of the situational variables of concrete reward presence and absence or set for task difficulty.

Such results make it difficult to draw conclusions regarding the potencies of the independent variables. Although variables such as presence of a concrete reward and task difficulty set have had significant impacts with older Ss (Douvan, 1966; Feather, 1966), they may have little influence on the performance of six-year-olds. On the other hand, many achievement type differences have been found among children from varying socioeconomic backgrounds so it was surprising not to see differences reflected on this measure. This leads to speculation about the effects of the study's design on outcome.

Insufficient Ss may have been included in each cell. The power of the F test with an n of six per cell may have been insufficient to detect differences actually present in performance. No time limit was placed on the Ss problem-solving effort, therefore, variance was large. A design which limited time Ss were allowed to persist might have reduced error variance and thereby increased the probability of identifying group differences. Further,the impact of the variables included in this study may not appear in the performance of six-year-olds but may influence the behavior of older children. It appears that the questions which led to this investigation remain unanswered. Further research incorporating design changes suggested above appears to be warranted.

References

Atkinson, J. W., & Feather, N. T. The theory of achievement motivation. New York: John Wiley & Sons, 1966.

Crockett, H. J. The achievement motive and differential occupational mobility in the United States. In J. W. Atkinson, & N. T. Feather (Eds.), The theory of achievement motivation. New York: John Wiley & Sons, 1966. Pp. 185-204.

Douvan, E. Social status and success strivings. Journal of Abnormal and Social Psychology, 1956, 52, 219-222.

Feather, N. T. The relationship of persistence at a task to expectation of success and achievement related motives. In J. W. Atkinson, & N. T. Feather (Eds.), The theory of achievement motivation. New York: John Wiley & Sons, 1966. Pp. 117-134.

Gellerman, L. W. Chance orders of alternating stimuli in visual discrimination experiments. Journal of Genetic Psychology, 1933, 42, 206-208.